

## OIB - P-3 Orion 10/31/17 Science Report

**Aircraft:** [P-3 Orion - WFF](#) ([See full schedule](#))

**Date:** Tuesday, October 31, 2017

**Mission:** OIB

**Mission Location:** Antarctica

**Mission Summary:**

This is a repeat flight, designed to assess  $dh/dt$  of several glaciers draining into the Larsen A, B, and C embayments. From north to south, these glaciers are the Drygalski, Hektoria, Crane, Melville, Starbuck, Flask, Leppard, Attlee, Gould, Demorest, and Gibbs. In addition to these glaciers, we repeat two lines over Scar Inlet, and several flowlines on the Larsen-C Ice Shelf. Finally we overfly the Bawden Ice Rise on the eastern edge of the Larsen-C, since it may contribute to the stability of the ice shelf. A magnetic compensation box was also completed after the main survey line was complete to calibrate the magnetometer.

A few clouds on the southwestern edge of the flight path caused us to miss the Gould and Demorest glaciers, but the weather was otherwise clear leading to good data collected. The snow radar had an undetermined source of noise present which led to a lower SNR for the data collected, though this can likely be fixed in post-processing. The gravimeter instrument is still awaiting their ground station which is currently stuck in the sea cargo container, it is possible that data gaps in the data may be present due to the usage of an independent ground station. All other instruments ran well during the flight.

Data volumes

ATM: T6: 67 Gb      T7: 85 Gb

FLIR: 8.0 Gb

Cambot: 30 Gb

KT19: 12 Mb

DMS: 36.5 Gb

MCoRDS: 658.0 Gb

Gravity/Magnetometer: 3 Gb

Accumulation radar: 702 Gb

Snow/Ku radar: 758 Gb

data on: 1540

data off: 1917

**Submitted by:** Nathan T. Kurtz on 10/31/17

**File:**



[north\\_penA.pdf](#)

**Related Flight Report:**

### P-3 Orion 10/31/17

**Flight Number:** OIB-Ushuaia Science Flight #2

**Payload Configuration:** OIB - Ushuaia 2018

**Nav Data Collected:** No

**Total Flight Time:** 8.9 hours

**Submitted by:** Janet Letchworth on 11/01/17

**Flight Segments:**

<b>From:</b>	SAWH	<b>To:</b>	SAWH
<b>Start:</b>	10/31/17 13:18 Z	<b>Finish:</b>	10/31/17 22:13 Z
<b>Flight Time:</b>	8.9 hours		
<b>Log Number:</b>	<a href="#">18P006</a>	<b>PI:</b>	Nathan Kurtz
<b>Funding Source:</b>	Bruce Tagg - NASA - SMD - ESD Airborne Science Program		
<b>Purpose of Flight:</b>	Science		
<b>Comments:</b>	Second Science Flight of the Ushuaia Campaign covering the Northern Peninsula A flight line.		

**Flight Hour Summary:**

						<b>18P006</b>
<b>Flight Hours Approved in SOFRS</b>						151
<b>Total Used</b>						156
<b>Total Remaining</b>						-5
<b>18P006 Flight Reports</b>						
<b>Date</b>	<b>Flt #</b>	<b>Purpose of Flight</b>	<b>Duration</b>	<b>Running Total</b>	<b>Hours Remaining</b>	<b>Miles Flown</b>
<a href="#">10/17/17</a>	OIB - Airworthiness Test Flight	Check	1.1	1.1	149.9	
<a href="#">10/18/17</a>	OIB - Project Test Flight	Check	3.5	4.6	146.4	
<a href="#">10/19/17</a>	OIB PTF - Radar	Check	4.5	9.1	141.9	
<a href="#">10/23/17</a>	OIB - Transit leg #1	Transit	7.1	16.2	134.8	
<a href="#">10/24/17</a>	OIB - Transit leg #2	Transit	6.5	22.7	128.3	
<a href="#">10/25/17</a>	OIB - Transit leg #3	Transit	7	29.7	121.3	
<a href="#">10/29/17 - 10/30/17</a>	OIB-Ushuaia Science Flight #1	Science	9.7	39.4	111.6	
<a href="#">10/31/17</a>	OIB-Ushuaia Science Flight #2	Science	8.9	48.3	102.7	
<a href="#">11/03/17</a>	OIB-Ushuaia Science Flight #3	Science	9	57.3	93.7	
<a href="#">11/04/17</a>	OIB-Ushuaia Science Flight #4	Science	9.3	66.6	84.4	
<a href="#">11/12/17</a>	OIB-Ushuaia Science Flight #5	Science	9.5	76.1	74.9	
<a href="#">11/14/17</a>	OIB-Ushuaia Science Flight #6	Science	9.8	85.9	65.1	
<a href="#">11/16/17</a>	OIB-Ushuaia Science Flight #7	Science	9.1	95	56	
<a href="#">11/21/17</a>	OIB-Ushuaia Science Flight #8	Science	9.4	104.4	46.6	
<a href="#">11/22/17 - 11/23/17</a>	OIB-Ushuaia Science Flight #9	Science	9.9	114.3	36.7	
<a href="#">11/24/17</a>	OIB-Ushuaia Science Flight #10	Science	9.6	123.9	27.1	
<a href="#">11/25/17 - 11/26/17</a>	OIB-Ushuaia Science Flight #11	Science	9.5	133.4	17.6	
<a href="#">11/27/17</a>	OIB-Ushuaia SAWH-SCDA Transit Flight	Transit	7	140.4	10.6	
<a href="#">11/28/17</a>	OIB-Ushuaia SCDA-MROC Transit Flight	Transit	7	147.4	3.6	
<a href="#">11/29/17</a>	OIB-Ushuaia MROC-KNGU Transit Flight	Transit	6.3	153.7	-2.7	
<a href="#">11/29/17</a>	OIB-Ushuaia KNGU-KWAL Transit Flight	Transit	0.8	154.5	-3.5	
<a href="#">12/04/17</a>	OIB-Post Mission Calibration Flight	Science	1.5	156	-5	

*Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.*

Page Editor: Brad Bulger

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